



THE COMMONWEALTH OF MASSACHUSETTS
WATER RESOURCES COMMISSION
100 CAMBRIDGE STREET, BOSTON MA 02114

Meeting Minutes for July 13, 2006

Minutes approved November 9, 2006

Members in Attendance:

Stephen Pritchard	Commissioner, EOEa
Kathleen Baskin	Designee, EOEa
Marilyn Contreas	Designee, DHCD
Mike Gildesgame	Designee, DCR
Mary Griffin	Designee, DEP
Gerard Kennedy	Designee, DAR
Mark Tisa	Designee, DFG
Thomas Cambareri	Public Member
Scott Horsley	Public Member
John LeBeaux	Public Member
David Rich	Public Member

Others in Attendance:

Michele Drury	DCR
Linda Hutchins	DCR
Becky Saggese	DCR
Sara Cohen	DCR
Duane LeVangie	DEP
Anne Monnelly	DCR
Eileen Simonson	WSCAC
Marilyn McCrory	DCR
Katlyn Stillings	CDM
Margaret Van Deusen	Charles River Watershed Association
Elizabeth McCann	DEP
Frank Hartig	DCR
Margaret Callanan	EOEA
David Lutes	EOEA
John Clarkeson	EOEA
Vandana Rao	EOEA
Daniel Lorch	EOEA
Paul Lauenstein	WSCAC/Neponset River Watershed Association
Peter Weiskel	USGS
William Murray	PLACES Site Consultants (proponent's representative)
Ralph Abele	EPA

Agenda Item #1: Discussion: Sustainable Water Resources

Pritchard opened the meeting. He commended the Water Resources Commission for its work and the public for its contributions.

Pritchard introduced the discussion of sustainable water resources by noting that many communities face challenges in providing adequate water for residents, economic growth, and ecological resources. Discussion of these challenges has been precipitated partly by the potential expansion of the MWRA service area.

Pritchard described the competing pressures on water supply, including growth and increased demand for water, reduced recharge, increased sewerage, contamination, and determining where growth takes place versus where the water resources are located. The impacts include environmental impacts (19 of 27 watersheds are highly stressed by low flow); economic growth, development, and individual-use limitations; pressures on MWRA to transfer water from central to eastern Massachusetts; and pressure for new sources such as desalination.

Pritchard pointed to the many activities focusing on water supply and sustainable use in the commonwealth, including smart growth and sustainable development initiatives, the water assets studies, the USGS sustainable yield study, and activities of DFG's Riverways program. The challenge, he said, is coordinating and integrating all of these activities.

Pritchard suggested that the Water Resources Commission is the body that can have this "60,000-foot view" of long-term (50 years), sustainable water supply. He added that we must continue to maintain that vision as we make day-to-day decisions about specific components of water supply, including withdrawals, transfers, sewerage, and conservation. The challenge for the WRC is to develop a framework that will guide these incremental decisions. This framework or plan will not be static. Gaps in information will continually have to be filled. Pritchard asked the WRC to establish priorities and guide the investment of resources needed to fill those gaps.

Pritchard pointed to the visionary decisions 60 years ago that resulted in creation of the Quabbin Reservoir, which supplies water to eastern Massachusetts. He expressed his belief that the Blue Ribbon Panel, which was recently established to look at a component of the Water Management Act, should report to the WRC.

Pritchard announced that Kathy Baskin, Director of Water Policy, will lead the effort to develop this framework, taking initial steps before the end of the year. He said such an effort will be timely in light of the major issues currently before the WRC, including potential expansion of the MWRA system and desalination projects.

Open Forum:

In response to a question about the Blue Ribbon Panel, Pritchard reiterated that this panel is charged with a relatively narrow review of specific components of the WMA. However, the panel's work needs to dovetail with the broader water supply picture, and the WRC is where that broader picture exists. He added that the statute that created the WRC intended the commission to have this broad, long-term view of the water resources of commonwealth, considering both human and ecological needs.

Rich commented that there is no debate about the need for “sustainable water resources,” but that achieving this goal is very complicated. Pritchard acknowledged the challenges in providing a framework that addresses all perspectives. He said it will be important to include a variety of different stakeholders in the discussion.

Griffin asked if it was appropriate for the WRC to play a role in starting a larger conversation about water conservation. She suggested a series of regional meetings to raise public awareness. Pritchard agreed such an effort would be useful. Baskin agreed that such discussions would be helpful to the water suppliers in demonstrating customer support for potential rate increases. Pritchard added that such regional conversations are important since watershed boundaries overlap political boundaries.

Simonson stated that the leadership of the Massachusetts Municipal Association had pursued the option of challenging DEP’s authority, the Secretary’s authority, and the state water policy without a vote by their membership. She said that the proposed effort would be a good opportunity to work more cooperatively with the MMA as a whole. She added that it is important to pursue a basin approach to water management and to work outside of political boundaries.

LeBeaux responded that, as a member of the Massachusetts Municipal Association, he disagreed with the Secretary’s point of view. He said that the MMA has taken a proactive stance on behalf of cities and towns facing serious problems. He added that towns are being mandated to achieve standards that they believe they cannot achieve. He agreed that it would be better if all were to work in a cooperative fashion and that communities within the same watershed should work together to achieve common goals. He indicated that MMA wants to be included in conversations about these issues.

Pritchard urged all parties to find solutions rather than to litigate problems. Baskin added that the WRC looks at MMA as a key stakeholder in this effort, along with the Massachusetts Water Works Association, watershed associations, MAPC, MRWA, WSCAC, and others.

Horsley brought up DEP’s new stormwater standards and the stormwater policy’s attempt to balance hydrology on a site-by-site basis. He commended Massachusetts as one of the few states in the country that requires the same amount of recharge pre- and post-development. To achieve a goal of sustainable water resources statewide, each project will have to be permitted in a way that is sustainable, that is, that balances the hydrologic budget on the site or that is part of a trading system.

Pritchard agreed that we are making incremental decisions now, and that we should make those decisions with a broader framework in mind. If we continue to use water in an unsustainable way, we will continue to create problems.

Cambareri pointed to the response to a program to distribute rain barrels on Cape Cod as evidence that, individuals recognize the problems, and given an opportunity, will try to take action.

In response to a comment from Lauenstein (that a diverse stakeholder group is needed for revisions to DEP's Annual Statistical Report form), Pritchard reiterated that identifying science-based information gaps is key to making policy decisions. As an example, he said information is needed to assess stress in the coastal basins. He again asked the WRC to identify the key knowledge gaps and prioritize the resources needed to address those gaps. He added that we must be careful not to duplicate efforts. Gildesgame mentioned that a big challenge is knowing when enough data exists to make a decision. Pritchard replied that the process of developing the long-term framework on sustainable water resources will be iterative and dynamic.

Ralph Abele of the U.S. EPA encouraged Pritchard to keep up the momentum of the Water Policy Task Force and the implementation of the Water Policy. Pritchard agreed that we must pull information from as many sources as possible. He invited EPA to be a partner in these efforts.

Weiskel commented on a number of complementary, ongoing activities that will feed into the effort of defining water sustainability. These include the DEP/USGS cooperative work to develop the "sustainable yield estimator" tool, as well as the Water Assets and Water Budgets studies. Pritchard replied that the state should continue to support these efforts to fill knowledge gaps and provide tools to help in decision-making. He added that the WRC should understand how all these components link together and that the WRC should drive decisions on how to spend scarce resources.

Pritchard concluded by thanking the commission for the challenge it was about to undertake.

Agenda Item #2: Vote on Water Conservation Standards for the Commonwealth

Baskin observed that the version of the water conservation standards before the commission reflects extensive input from the commissioners and the public. She highlighted a few corrections made to appendices (which do not affect the standards and are provided as an educational tool) and pointed out a new appendix that showcases several examples of local water conservation efforts. She indicated that staff were waiting for input from the Irrigation Association on technical clarification of some information provided by the association. She asked the commission's permission to correct any typographical errors and to incorporate the technical input on the appendices. Baskin thanked Anne Monnelly and Vandana Rao, in particular, as well as those who reviewed the standards and provided comments. She noted that the standards were first released fourteen years ago and said the new standards are a great improvement over the past standards. Regarding comments made by the Massachusetts Water Works Association, she added that the standardized European method for unaccounted-for water could be considered in the future, once it is finalized.

Horsley stated that he had made comments in writing and would reiterate those now. He suggested that the concept of low-impact site design should be included as a conservation standard rather than a recommendation. Conserving water at the residential level begins with site design that incorporates opportunities to recharge and recycle water. He pointed out that this would dovetail with other state initiatives, such as the Smart Growth Toolkit and revisions to the stormwater standards.

Baskin acknowledged Horsley's comment and referred to the previous commission meeting where the commission debated whether to include Horsley's comment as a standard or a recommendation. Part of the commission's difficulty was determining whether this standard could be measured and enforced. In the end, the commission decided to include Horsley's comment as a recommendation. Gildesgame added that it would be hard to enforce this standard without having specific local bylaws in place.

Horsley apologized for missing the debate, but stated that he felt strongly that better site design should be included as a standard. He questioned whether all of the standards could be measured accurately, using the residential per capita limit of 65 as an example. Baskin responded that the commission concluded that, as worded, the proposed standard would be difficult to enforce, and though the commission liked the intent, it decided to include this element as a recommendation rather than a standard. She added that a residential per capita standard of 65 gpcd could be written into a DEP permit, but the state could not force towns to pass by-laws.

Rich stated that WRC has debated this issue for nine months, and that the staff had done a great job putting together the revised standards, but added that he still has problems with the 65 gpcd standard. Will it stay at 65? His concern is that in the future, the recommendations could become standards. In particular, Rich objected to page 1 of the standards, stating that the wording implies that the recommendations will become standards the next time this document is reviewed. Baskin asked Rich to suggest a revision he would be comfortable with. After some discussion, the following wording was proposed for page 1, second paragraph, last sentence: "Although they may not be as widely achievable, implementable, and practical at the present time due to economic or technical reasons, they indicate the trend in responsible water use and *may serve as a starting point for examining the standards* in future revisions of the document." Baskin asked commissioners for their acceptance of this change.

Gildesgame said that, though he agrees LID techniques should be included, the language should not focus specifically on LID. That is why Recommendation 1 in Standard 9, Lawn and Landscape (page 24) refers broadly to land-use practices. Horsley suggested adding a parenthetical reference to LID at this point. Recommendation No. 1 would read, "Establish policies, regulations, or bylaws/ordinances that ensure that land use and development practices (*such as LID techniques*) preserve...."

Horsley requested adding a similar reference to Section 5, residential standards, since LID techniques apply more broadly than just to lawn and landscape practices. He reiterated that he thought LID should be included as a standard, not a recommendation, and that this was the direction DEP was taking with the stormwater standards. Baskin suggested adding a ninth recommendation to Section 5, to read, "*In site design, incorporate LID techniques that preserve natural vegetation, preserve or restore a site's natural hydrology, and use low water-use/drought-resistant landscaping techniques to the maximum extent practicable.*"

LeBeaux liked the changes with information provided by UMass Extension but questioned references to "native plants" in the new Appendix I, page 43. Baskin suggested the following revision, consistent with the wording in Section 9: "*Choose plant species according to micro-climates.*"

LeBeaux questioned whether a recommendation in Appendix J to “consider letting an area ‘go wild’” conflicts with Department of Public Health policies that recommend trimming vegetation to minimize tick exposure. Gildesgame suggested adding a parenthetical caution about ticks to this bullet on page 47. Griffin suggested that the tick issue is a Department of Public Health issue but not one that the WRC needs to address.

Levangie questioned the revision to Section 9, Standard No. 1. Levangie felt that the standard should not apply to water-short, stressed basins only. After some discussion, it was agreed to return to the original sentence, but delete the words “or avoid.”

Simonson expressed concern that the examples presented in Appendix L would be viewed as role models. In response, Baskin and Gildesgame suggested adding qualifying language at the beginning of Appendix L stating that these are offered as examples and are not necessarily endorsed by the commission.

Horsley expressed concern that the language in Section 9, Standard #1, should specify that use of potable water be minimized, and that the language on watering landscapes should be even stronger, particularly as it relates to stressed basins. Baskin disagreed, stating that such a change might inadvertently result in the drilling of more private wells. Horsley clarified that his intent was to encourage the use of collected rainwater, rather than potable water, for irrigation.

LeBeaux requested that commissioners be provided with copies of the public comments. He said he had reviewed the public comment letters and observed that many cities and towns questioned the proposed standards. In particular, he pointed to letters from the MWRA and the MWRA Advisory Board. He said he was not convinced that the standards were achievable, implementable, and practicable and stated his intention to oppose the standards.

Cambareri pointed out that the standards were last revised in 1992 and that it was time to put new standards, which incorporate a great deal of new information, in place. Though there may be disagreement about particular numbers, he felt that 65 gpcd was a reasonable existing goal for water use. He concluded by commending WRC staff for their efforts in responding to public comments. He agreed that WRC members should have the opportunity to review comments.

Gildesgame commented that the standards, by their nature, are general and are meant to apply to different types of water users across the commonwealth. The point of the standards is to set the direction for effective and efficient water use in the commonwealth. He added that no one expected 100 percent agreement on the standards. Nevertheless, it was important to move forward with adopting and promoting revised standards

Griffin pointed out that the language on unaccounted-for water and residential use was “Meet or demonstrate steady progress toward meeting....” Baskin responded that the point was that the commission wants these standards to be achievable.

V O T E	A motion was made by Gildesgame with a second by Cambareri to approve the Water Conservation Standards dated July 2006, as amended (recognizing there will be a few small corrections or inputs by staff), as amended on pages 1, 24 – 25, 19, Appendix I (p. 43 table), p. 24 standard 1, and p. 50.
	The vote was nine to approve and one opposed.

Agenda Item #3: Presentation: Water Assets Regional Summary Report

Baskin introduced the speaker, Sara Cohen, and said that the Water Assets study was a pilot that has evolved into the statewide Water Budgets study, which also incorporates wastewater.

As background, Cohen explained that the purpose of the Water Assets study was to foster long-range planning by assessing existing water supply resources, anticipating needs, and proactively protecting current and future water supplies. The study area consisted of 131 communities in the high-growth I-495 corridor and included ten watersheds. The pilot study was conducted in two phases. Phase one produced individual community reports distributed to all communities in the study area in Fall 2004. Phase two produced a Regional Summary Report, which examined data by major watersheds and included analyses at the regional level. As the WRC had previously heard presentations on phase one of the project, this presentation reviewed the substance of phase two.

Cohen explained the types of analyses conducted at the regional level and the data on which those analyses were based. The analyses were organized into five sections: 1) capacity and demand, 2) environmental considerations, 3) land-use issues, 4) interdependencies and shared water resources, and 5) the future outlook. It is hoped that the products (maps, tables, and reports) will foster dialog and help communities and water suppliers to take proactive steps to acquire land or otherwise protect potential sources of water supply.

Cohen briefly described the current Water Budgets study, which is a statewide analysis of human-induced water imports and exports at the HUC 14 level, considering water supply and wastewater transport, I/I, irrigation losses, and impervious surface losses. The net gains or losses will be aggregated at the subwatershed and town levels and compared to estimated natural streamflows for each subwatershed.

In answer to a question about one of the regional analyses in the Water Assets Regional Summary Report, Clarkeson, also Project Co-Manager of the study, said that the purpose of the maps showing potential locations of groundwater sources was to highlight areas where communities should consider focusing their land protection efforts, given that they are likely to use more water in the future. In parallel with this study, the Water Policy Task Force recommended that EOEa provide grant funding to help communities acquire land to protect water supplies. This resulted in the Drinking Water Supply Protection grant program. Ten applications were received in the first year, six of which referenced the community reports produced by the Water Assets study.

There was some discussion about the accuracy and usefulness of build-out analyses and future water demand projections. The availability of the Water Assets reports was discussed. The Regional Summary Report will be available on-line as soon as the final publication review is complete. Obtaining the individual Community Reports requires a formal request from a legitimate interest, to protect the concern on the parts of some municipalities that the information may be sensitive. Sara Cohen was recognized for a great amount of work she performed on this project.

Agenda Item #4: Presentation: Woodlands at Laurel Hill (Westford and Acton), Request for a Determination of Insignificance under the Interbasin Transfer Act

Drury introduced the developer's representative present at the meeting and provided background on the project, which would involve a transfer of water from the Merrimack River basin to the Concord River basin. The Acton Water District will serve only the portion of the development within the town of Acton. Legislation prohibits it to serve water to the Westford portion of the development. The expense for Westford to provide water to the development was more than a million dollars and would have caused wetlands disturbance. The best solution was for Littleton to provide the water. The interbasin transfer would provide water from Littleton to a portion of the new residential development located in Westford. Hutchins presented the analysis by WRC staff. The amount of the transfer is 15,080 gallons per day, or about 10 gallons per minute. The proponent's request was compared to the criteria for insignificance under the Interbasin Transfer Act, and staff concluded that the project meets the criteria for insignificance.

Horsley asked if alternatives, such as capturing rain water, had been considered for irrigation. Murray, the proponent's consultant, responded that potable water would not be used for irrigation; on-site wells are being developed for irrigation and this water will be returned to areas within the same watershed. Rain gages, timers, and controllers will be used on the irrigation system to minimize outdoor water use. Low-flow plumbing fixtures will also be used. He added that the majority of the site is retained in a Conservation Restriction and, because LID techniques are being used, the development will use less water for irrigation. In order to meet recharge requirements, the development will not capture stormwater to use for irrigation, but will recharge stormwater for the benefit of natural areas on the site.

Simonson asked if the analysis considered the number of units (360) being proposed in Acton, which itself does not have an excess of water. Murray responded that, through aggressive water conservation and leak detection efforts, Acton had reduced water use to levels well below its permitted withdrawal limits. DEP indicated that Acton's supply was not an issue. Baskin commented that there is often a tension between the desire to develop affordable housing and concerns about strains on water supply. Murray responded that the proponent looked at and ruled out various alternatives, including using on-site wells to serve a portion of the site, and that DEP had requested that they tie into the municipal system.

Lauenstein asked what the population of the 88 units would be and what was the source of the demand projection? The response was Title 5.

Baskin reminded the commission that a vote on the Woodlands at Laurel Hill project would be expected at the next WRC meeting.

Agenda Item #5: Executive Director's Report

Hutchins provided an update on the hydrologic conditions, including details on the historic amounts of rainfall that fell in June. Statewide average precipitation for June is estimated to be 267 percent of normal. The highest rainfall totals for June occurred in the southeast region of Massachusetts. According to the National Weather Service, June was the third wettest June on record for Boston. The amount of rain that fell in May and June was the highest on record for these two months combined. After only nine months, every region of the state is above the total amount of precipitation expected for the entire water year (which runs from October through September). June streamflows and groundwater levels were above normal statewide. June reservoir levels were normal.

Hutchins reported that the National Weather Service is confirming reports of a tornado in Wendell, Massachusetts, on July 11, and is investigating tornado reports in Marblehead.

Baskin then updated the commission on ongoing studies and activities of commission and EOE staff. Updates will be provided at future meetings on the index streamflows study, streamlining of the permitting process for dam removals, and the desalination policy.

Regarding the Secretary's challenge to develop a framework or "road map" for sustainable water resources, Baskin pointed to a memo from Baskin to the Secretary. The memo outlines the tasks needed to develop this framework. She noted that the timeframe for completing this framework is only five months. The framework will include information from ongoing studies. Where information is not available, the framework will determine the effort needed to fill the gaps. Simonson pointed out that the Water Policy Task Force had previously put a great deal of effort into defining what we do not know. Baskin acknowledged that staff will incorporate these previous efforts.

Baskin said the foundation for the framework will be the Water Policy, which discusses natural resources and describes how to use every drop of water – including wastewater, stormwater, and drinking water – efficiently. The product will be a report that identifies areas that need work and laws and regulations that need to be examined. Broadly, the report will outline the steps needed to ensure a sustainable water supply for drinking water and natural resources. She added that staff will be looking for direction from the commissioners on this road map.

Baskin noted that the Water Resources Commission has issued both a Water Policy and a Water Supply Policy Statement, which was last released in 1996 and is due for an update. Simonson observed that the Water Supply Policy Statement is a potable water supply policy with a natural resources component. She said the document titles are potentially confusing, and it should be clear that the focus of the latter is on drinking water supply, not water resources policy. Gildesgame responded that the Water Supply Policy Statement was envisioned as a component of a larger water policy.

It was noted that Wilmington had filed a Supplemental EIR for its MWRA interbasin transfer.

Meeting adjourned